THE STATUS OF THE GENUS CRYPHIDIUM

(BRYOPHYTA: MUSCI)

Harold Robinson
Smithsonian Institution, Washington, D.C. 20560

During recent studies of South American mosses, I have rather incidentally gathered information on the genus Cryphidium. I have seen material of a number of the species that have been placed in the genus, and the more recent transfer of most of these species to other genera has been noted. At this time I would complete the reduction of the genus.

Cryphidium was first established by Mitten (1869) as a section of Neckera with one species, N. leucocoleum Mitt., from Uruguay. The section with its single species was raised to generic rank by Jaeger (1877). The extension of the genus to include five Australian and Pacific Island species was the work of Brotherus in the first edition of Engler and Prantl (1905). A more proper alinement of these other species was indicated first by Fleischer (1914) and then summarized by Brotherus in the second edition of Engler and Prantl (1925).

In the Brotherus treatment of 1905, the concept of the genus was altered greatly by the addition of the Australian and Pacific species which had the capsules terminal on unspecialized branches. These latter species are now placed in a separate genus, Cyptodon, and the relationship is closer to Dendrocryphaea of Chile. Cyptodon and Dendrocryphaea come closest to each other geographically in Chile where C. crassinervis Broth. of Juan Fernandez has been mistaken for D. cuspidata (Sull.) Broth. of the Chilean mainland. The differences between these two species include the following, of which some are generic characteristics. Cyptodon crassinervis has a more acute leaf apex, lacks the minute papillae at the ends of the leaf cells, has a smoother abaxial surface on the costa, lacks the small area of slightly larger cells below the larger area of transversely elongate alar cells, and has a flatter rather than conical operculum.

There remains the question of the generic distinctions of Cryphidium as represented by the type species. In the recent treatment in Musgos Sul-Brasileiros II by Sehnem (1970), the genus is separated from Cryphaea by the portion of the Conspecto stating "arquegoniários terminais em ramos mais ou menos alongados" versus "Arquegoniários em ramos curtíssimos laterais". This incorrect characterisation of Cryphidium seems to be derived from the earlier work of Brotherus (1905).

Examination of recent material collected in Uruguay (Zorron, 3933) shows that Cryphidium differs from Cryphaea only by the

completely rounded leaf apices. The continued separation of the two genera seems to be a relict of century-old thinking where pleurocarpous mosses with blunt leaves were rather mechanically thrust into the genus Neckera. The existance of some members of the Neckeraceae with similar leaves such as Leptodon smithii (Hedw.) Web. & Mohr and species of Pinnatella must have helped perpetuate the separation.

On the basis of my observations I do not consider Cryphidium generically distinct from Cryphaea. The following new combination is necessary.

Cryphaea leucocolea (Mitt.) H.Robinson, comb. nov. Neckera leucocolea Mitt., J. Linn. Soc. Bot. 12: 457. 1869.

Literature Cited

Brotherus, V. F. 1905. Hedwigiaceae-Rhacocarpeae (Schluss), Fontinalaceae, Climaciaceae, Cryphaeaceae, Leucodontaceae, Prionodontaceae und Spiridentaceae. Die Natürlichen Pflanzenfamilien 1(3). 223: 721-768.

_____. 1925. Musci (Laubmoose). Die Natürlichen Pflanzenfamilien, Ed. 2. 11: 1-542.

Fleischer, M. 1914. Kritische Revision von Carl Müllerschen Laubmoosgattungen I. Hedwigia 55: 280-285.

Jaeger, A. 1877. Adumbatio florae muscorum. Sectio IV. Pleurocarpi. Trib. XXVI. Leucodontaceae - Trib. XXVIII Hookeriaceae. Bericht St.Gallischen naturw. Ges. 1875-76: 201-371.

Mitten, W. 1869. Musci austro-americani. Enumeratio muscorum omnium austro-americanorum auctori hucusque cognitorum. J. Linn. Soc. Lond,m Bot. 12: 1-659.

Sehnem, S. J. Aloysio 1970. Musgos sul-brasileiros II. Pesquisas Bot. 28: 1-117.